Amendments to the Claims

1. (Currently Amended) A method of organ augmentation comprising the steps of:

transiently transfecting a first population of cells with a plasmid encoding the angiogenesis modulating agent VEGF, such that said first population of cells express VEGF for less than about 10 weeks;

encapsulating the transfected cells;

selecting a second population of cells to be assimilated at a target tissue region upon implantation, wherein the second population of cells comprises ~~cells of a different cell type than the first population~~ myoblasts,

suspending the first population of cells and the second population of cells in an injectable polymer matrix;

injecting the first and second populations of cells and the polymer matrix into ~~a~~ the target tissue region where the first population of cells will express the VEGF angiogenesis modulating agent,

thereby inducing assimilation and differentiation of ~~at least one of the populations of cells~~ the myoblasts in the target region and augmenting organ function.

2. (Previously Presented) The method of claim 1, wherein the step of transfecting the first population of cells comprises transiently transfecting the cells such that the angiogenesis modulating agent is produced for less than three weeks.

3. (Previously Presented) The method of claim 1, wherein the first population of cells comprises undifferentiated cells.

4. (Previously Presented) The method of claim 1, wherein the first population of cells comprises vascular endothelial cells (EC).

5. (Canceled)

6. (Previously Presented) The method of claim 1, wherein the second population of cells comprises undifferentiated cells.

7. (Previously Presented) The method of claim 1, wherein the second population of cells comprises vascular endothelial cells (EC).

8. (Previously Presented) The method of claim 1, wherein the polymer matrix comprises collagen.

9. (Previously Presented) The method of claim 8, wherein the polymer matrix comprises collagen type I.

10. (Currently amended) The method of claim 1, wherein the first population of cells express the VEGF angiogenesis modulating agent for less than about ~~10~~ three weeks.

11. (Cancelled)

12. (Previously Presented) The method of claim 1, wherein the first population of cells comprises myoblasts.

13. – 22. (Canceled)

23. (Currently Amended) A method for augmenting organ function comprising:

culturing at least a first population of cells on a matrix material to produce an organ construct;

transiently transfecting a second population of cells with a plasmid encoding an angiogenesis modulating agent, wherein the second population of cells comprises cells of a different cell type than the first population, wherein either the first or second population of cells comprises myoblasts;

encapsulating the transfected cells; and

implanting the organ construct and the transfected cells *in vivo* at one target site to replace or augment organ function, such that the transfected cells express the angiogenesis modulating agent for less than about 3 weeks and the first population of cells assimilate and differentiate at the target site.

24. (Original) The method of claim 23, wherein the matrix is decellularized tissue.

25. (Original) The method of claim 23, wherein the matrix is a hydrogel.

26. (Original) The method of claim 23, wherein the matrix is a polymer.

27. (Canceled)

28. (Original) The method of claim 23, wherein the angiogenesis modulating agent is VEGF.

29. (Previously Presented) The method of claim 23, wherein the method further comprises assimilating the transfected cells into a tissue layer.

30.-32. (Canceled)

33. (Previously Presented) The method of claim 23, wherein the organ construct and the transfected cells are each implanted *in vivo* at a plurality of target sites.

34. (Previously Presented) The method of claim 1, wherein the step of encapsulating the transfected cells further comprises using microspheres.

35. (Previously Presented) The method of claim 1, wherein the step of encapsulating the transfected cells further comprises using alginate-PLL capsules.

36. (Previously Presented) The method of claim 23, wherein the step of encapsulating the transfected cells further comprises using microspheres.

37. (Previously Presented) The method of claim 23, wherein the step of encapsulating the transfected cells further comprises using alginate-PLL capsules.